

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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Attachments

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT OF THE DISCLOSURE:

The Abstract of the Disclosure has been amended as follows:

ABSTRACT OF THE DISCLOSURE

An apparatus and method ~~are disclosed~~ for providing a seal between first and second relatively rotatable parts of machinery ~~such as screw conveyors and the like~~ which operate in an environment comprising dust, grit or other finely divided solid material entrained in air, water or other fluid. The seal ~~comprises~~ includes a rotor and a stator between which there is an annular passage with substantial clearance between the interfacing surfaces defining the passage. The solid material entrained in the fluid which enters the annular passage is deposited in layers on the interfacing surfaces when the mechanism is in use. The layers substantially reduced the cross sectional size of the annular passage and restrict flow of the fluid there through. The annular passage may be rendered tortuous by providing the rotor with annular fins which in use project into annular recesses in the stator, and vice versa. ~~The minimum value of the clearance between the interfacing surfaces is not substantially less than 0.4 mm and the ratio of this clearance to the minimum diameter of the annular passage is~~ versa.

~~not substantially less than 1:150. The ratio of the length of the annular passage to the annular passage is not substantially less than 1:2. The ratio of the width of the widest of the interfacing surfaces to the minimum diameter of the annular passage is not substantially less than 1:20.~~

A1 ABSTRACT OF THE DISCLOSURE

An apparatus and method for providing a seal between first and second relatively rotatable parts of machines which operate in an environment comprising dust, grit or other finely divided solid material entrained in air, water or other fluid. The seal includes a rotor and a stator between which there is an annular passage with substantial clearance between the interfacing surfaces defining the passage. The solid material entrained in the fluid which enters the annular passage is deposited in layers on the interfacing surfaces when the mechanism is in use. The layers substantially reduced the cross sectional size of the annular passage and restrict flow of the fluid there through. The annular passage may be rendered tortuous by providing the rotor with annular fins which in use project into annular recesses in the stator, and vice versa.